

REMARKS

The outstanding Office Action reminds the Applicant of the requirements for filing an information disclosure statement, objects to the drawings and the specification, rejects claims 2, 5-12, and 16-19 under 35 U.S.C. §112, 2nd paragraph, as being indefinite, rejects claims 13-15 under 35 U.S.C. §102(b) as being anticipated by La et al. (U.S. Patent No. 5,761,064), rejects claims 13-15 under 35 U.S.C. §102(e) as being anticipated by Dor et al. (U.S. Patent No. 6,701,259), rejects claims 1,3, 4, and 13-15 under 35 U.S.C. §103(a) as being unpatentable over Balamurugan (U.S. Patent No. 5,993,351) in view of "How Networks Work" by Derfler, rejects claims 1, 3, and under 35 U.S.C. §103(a) as being unpatentable over La et al. in view of "How Networks Work" by Derfler, rejects claims 1, 3, and under 35 U.S.C. §103(a) as being unpatentable over Dor et al. in view of "How Networks Work" by Derfler, and rejects claim 5-12 and 16-19 under 35 U.S.C. §103(a) as being unpatentable through various combinations of La et al., Dor et al., Derfler, Fernandez, and Wang et al. (U.S. Patent No. 6,721,939).

Reconsideration of the application is respectfully requested based on the following remarks.

Claims 1, 2, 6, 8-10, 12, 13, 17, and 19 have been amended to further clarify the subject matter regarded as the invention. Claims 5 and 16 have been canceled. Claims 1-4, 6-15, and 17-19 are now pending in this application.

INFORMATION DISCLOSURE STATEMENT

An information disclosure statement has been submitted together with this Amendment A in response to the pending Office Action.

OBJECTIONS TO INFORMALITIES IN THE SPECIFICATION

The changes suggested by the Office Action have been made to the specification in order to correct the informalities in the specification.

REJECTION OF CLAIMS 2, 5-12 AND 16-19 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH, FOR INDEFINITENESS

In the Office Action, the Examiner points out a plurality of terms that lack antecedent

basis. It is respectfully submitted that amendments have been made to the claims to provide appropriate antecedent basis.

PATENTABILITY OF CLAIMS

The present invention is directed to techniques for detecting defects on a semiconductor wafer. In particular, the invention uses sets of parallel processing nodes that process data collected from multiple detectors positioned about the semiconductor wafer. More specifically, claims 1 and 13 pertain to a composite-row based analysis technique for detecting defects that involves generating a plurality of first composite images, each of the first composite images being made up of each of the data frames collected by one of the detectors, and comparing each of the first composite images in order to obtain defect information.

The Office Action cites the Wang et al. reference to show the newly added limitations of claims 1 and 13 since La et al. and Dor et al. fail to teach such limitations. However, it is respectfully submitted that Wang et al. does not pertain to defect detection. Actually, Wang et al. pertains to a technique for ensuring that the “shot size,” or diameter, of an electron beam is within a desired range. See col. 1, line 38-39 for the definition of “shot,” and see col. 3, lines 10-18, for a summary of the technique. Therefore, it is not surprising that Wang et al. fails to teach or suggest the composite-row based analysis technique of claims 1 and 13.

Furthermore, since Wang et al. relates to monitoring the “shot size” of electron beams, which is a process that is implemented before the actual process of detecting defects on a semiconductor wafer, it is respectfully submitted that there is no teaching or suggestion to combine Wang et al. with La et al. or Dor et al.

It is submitted that La et al., Dor et al., Wang et al., and the other cited references, alone or in any combination, do not teach or suggest the features of claims 1 or 13. Therefore, it is submitted that claims 1 and 13 are patentably distinct from the cited references. It is submitted that dependent claims 2-4, 6-12, 14-15, and 17-19 are also patentably distinct from the cited references for at least the same reasons as those recited above for their corresponding independent claims. The additional limitations recited in the dependent claims are not further discussed as the above discussed limitations are believed to be sufficient to distinguish the claimed invention from the cited references. Thus, it is respectfully requested that the Examiner withdraw the rejection of claims 1-4, 6-15, and 17-19.

SUMMARY

It is respectfully submitted that all pending claims are allowable and that this case is now in condition for allowance. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. KLA1P095).

Respectfully submitted,
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Amendments to the Drawings:

A replacement drawing sheet containing FIG. 3 has been submitted to include reference characters that show columns 0, 256, 257, and 512. The Examiner mentions that the reference characters correspond to FIG. 2, however it is respectfully submitted that the reference characters are more appropriately shown in FIG. 3.

A replacement drawing sheet containing FIG. 5 has also been submitted to correct a spelling error.

Attachment: *TWO (2) REPLACEMENT SHEETS*